

REMARKS

The current application is a continuation of Application No. 09/918,584, filed July 31, 2001, as indicated in the first filing receipt, and the specification has been amended to reflect this as advised by the Examiner.

Claim 2 has been amended to define HB as a polyamide, polyether, vinylic polymer, polyimine, polysiloxane, or polyurethane hyperbranched polymer core. Support for the amendment of claim 2 may be found in claim 3 of the application as filed. Claim 3 has accordingly been cancelled.

Claim 6 has been rejected under 35 USC 112. As advised by the Examiner, Claim 6 of the current application has been amended to include the specific definition of R^2 that is given in claim 5. Therefore, it is respectfully requested that the rejection be reconsidered and withdrawn.

Claims 2-4 and 7 are rejected under 35 USC 103(a) as being unpatentable over Lent et al. (US 5,929,134) in view of Wang et al. (US 6,252,025). The applicants respectfully traverse this rejection. The current invention describes an ink jet ink composition of water, a humectant, and a hyperbranched polymer having a dye chromophore pendant on the polymer chain. Lent describes an ink composition including an aqueous resin dispersion, an aqueous colorant, and water (Lent column 3, lines 24-29). The colorant is not bound to the resin and thus this is very different from the current invention which requires a dye chromophore pendant on a polymer chain.

On column 7, lines 4-14, Lent does address the case when a more stable image is desired:

“Thus, when solvent resistance of the final printed image is desired, a combination of a dye having a reactive functional group and a resin containing a functional group capable of reacting, under elevated temperature conditions, with the functional group of the dye is required. There then is formed a covalent bond between the dye and the resin, after the ink is used to print an image on the desired substrate and the substrate is then subjected to heat curing.”

As described above, the dye becomes attached to the polymer only when part of the final printed and cured image, not as part of the ink jet ink aqueous composition. It would not have been obvious from the teachings of Lent to prepare an ink that includes a polymer with a pendent dye chromophore. Neither Lent nor Wang disclose or suggest an ink jet ink composition comprising water, a humectant, and a hyperbranched polymeric dye comprising a hyperbranched polymer having a dye chromophore pendant on the polymer chain. Therefore, it is respectfully requested that the rejections be reconsidered and withdrawn.

Claims 2-3, 6, and 9 are rejected under 35 USC 103(a) as being unpatentable over Lent et al. (US 5,929,134) in view of Dvornic (US 2003/0069370). The applicants respectfully traverse these rejections. As stated by the Examiner, Dvornic et al. discloses a hyperbranched polyamide, however, for the reasons discussed above, neither Lent nor Dvornic disclose or suggest an ink jet ink composition comprising a hyperbranched polymer having a dye chromophore pendant on the polymer chain. Therefore, it is respectfully requested that the rejections be reconsidered and withdrawn.

Claims 2-3, 5, and 8 are rejected under 35 USC 103(a) as being unpatentable over Sacripante et al. (US 6,025,412) in view of Figuly (US 5,126,014). The applicants respectfully traverse these rejections. Sacripante et al. disclose ink jet ink comprising water, humectant, and 2-20% polyester having dye attached to the base chain as side chain component and Figuly discloses a hyperbranched polyester prepared by polycondensation of monomer, as stated by the Examiner. The currently amended claims require an ink jet ink comprising a hyperbranched polymer having a dye chromophore pendant on the polymer chain and a polyamide, polyether, vinylic polymer, polyimine, polysiloxane, or polyurethane hyperbranched polymer core. Neither Sacripante nor Figuly disclose or suggest such materials. Therefore, it is respectfully requested that the rejections be reconsidered and withdrawn.

Claims 6 and 9 are rejected under 35 USC 103(a) as being unpatentable over Sacripante et al. (US 6,025,412) in view of Figuly (US 5,126,014) and further in view of *Polymer Science Dictionary*. As stated by the Examiner, Figuly discloses producing hyperbranched polyester by self-condensation of certain monomers. The *Polymer Science Dictionary* describes the production of polyester from condensation reaction of diacid. However,

neither Sacripante nor Figuly nor the *Polymer Science Dictionary* disclose or suggest an ink jet ink comprising a hyperbranched polymer having a dye chromophore pendant on the polymer chain and a polyamide, polyether, vinylic polymer, polyimine, polysiloxane, or polyurethane hyperbranched polymer core, as required by the currently amended claims. Therefore, it is respectfully requested that the rejections be reconsidered and withdrawn.

In view of the foregoing amendments and remarks, reconsideration of this patent application is respectfully requested. A prompt and favorable action by the Examiner is earnestly solicited. Should the Examiner believe any remaining issues may be resolved via a telephone interview, the Examiner is encouraged to contact Applicants' representative at the number below to discuss such issues.

Respectfully submitted,



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If the Examiner is unable to reach the Applicant(s) Attorney at the telephone number provided, the Examiner is requested to communicate with Eastman Kodak Company Patent Operations at (585) 477-4656.